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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,289	12/28/2001	Young-Hun Ha	8733,560.00	2930
30827 7590 06/10/2010 MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006				
EXAMINER NGUYEN, DUNG T				
ART UNIT 2871		PAPER NUMBER		
MAIL DATE 06/10/2010		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/028,289

**Applicant(s)**

HA ET AL.

**Examiner**

Dung T. Nguyen

**Art Unit**

2871

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4-20, 23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-8, 10, 11, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/808)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/03/2010 has been entered.

Applicants' amendment dated 11/05/2009 has been received and entered. By the amendment, claims 1-2, 4-8, 10-11 and 23-24 are pending in the application. Claims 9 and 12-20 stand withdrawn from consideration.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 4-8, 10-11 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodate, US 5,748,266, in view of Rho et al., US 6,862,050, Han et al., US 5,926,235 and the Applicant's admitted related art (ARA), figure 1.

Regarding the above claims, Kodate's figure 8 and accompanying text discloses a liquid crystal display (LCD) device comprising:

- . a lower substrate (TFT substrate 12) having a seal pattern portion (64)
- . a gate electrode (20)

- . a gate insulating layer (44)
- . a thin film transistor (TFT 16)
- . a passivation layer (52) as claimed
- . a pixel electrode (10)
- . a liquid crystal layer (34)
- . an upper substrate (72)
- . a color filter (32)
- . a common electrode (30)
- . a spacer (78)
- . the seal pattern (64) having a constant thickness is directly on the gate insulating (44)3.

Kodate, however, neither discloses the pixel electrode selectively covered the passivation layer nor a thickness of the seal pattern nor a storage capacitor structure.

Rho et al. do disclose an LCD device, in which a pixel electrode (140) can be selectively covered a passivation layer (100) as shown in figure 3. Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to employ the Kodate's device having a pixel electrode that covered a passivation as shown by Rho et al. in order to increase the storage capacitance (see paragraph bridging col. 5 and 6).

Han et al. do disclose a storage capacitor including a capacitance electrode (117) directly under the gate insulating layer (109), a semiconductor pattern (111) directly on the gate insulating layer and an auxiliary capacitance electrode (130) directly on the semiconductor layer and directly under the passivation layer (113a), wherein the semiconductor layer and the auxiliary capacitance electrode overlap the capacitance electrode, and the pixel electrode (104)

disposed over the passivation layer (113a) and contacts a side surface (e.g., top side surface) of the auxiliary capacitance electrode (see figure 5I) and the overlapping area of the auxiliary capacitance electrode and the capacitance electrode would be inherent the same. Han et al. also disclose the pixel electrode (104) contacted a side surface of the ohmic contact layer (112) and top surface of the drain electrode (106) as shown in figure 6B. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to employ the Kodate's display having a storage capacitor and a pixel electrode as shown by Han et al., since it is a common practice in the art to store and display a data for an LCD device.

ARA, figure 1, also disclose that a thickness of the seal pattern corresponds to a summation of a thickness of the pixel electrode and a thickness of the liquid crystal layer (see Applicant's specification, page 3, lines 24-25). Therefore, it would have been obvious to one skilled in the art at the time of the invention was employ a display having a thickness that corresponds to a summation of a thickness of the pixel electrode and a thickness of the liquid crystal layer, since it is a common practice in the art to maintain the uniform display cell gap.

Regarding method claims 7-8, since the method of manufacturing the device is merely a list of forming each component and each component must be formed to make the device, the method of manufacturing would be inherent to the device.

### ***Response to Arguments***

3. Applicant's arguments filed 05/03/2010 have been fully considered but they are not persuasive.

Applicants' only argument is that none of cited references fails to teach the combined features of claim 1, e.g., the pixel electrode does not contact a side surface of the ohmic contact layer and a top surface of the drain electrode. The Examiner is not convinced by this argument. In particular, the examiner agrees that Kodate and Rho et al. might not teach such feature of the claimed pixel electrode; however, Han et al. do teach and clearly shown such features of the claimed pixel electrode as stated above (see figure 6B).

Accordingly, the limitation of the above claims met.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung T. Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN  
06/07/2010

/Dung T. Nguyen/  
Primary Examiner  
Art Unit 2871